



The Governor's Nurse Workforce and Patient Care Task Force

COLLEEN GOODE, RN, COLORADO HOSPITAL ASSOCIATION & BERNIE PATTERSON, RN, NURSE ALLIANCE OF SEIU
CO-CHAIRS

Nursing in Colorado: Measuring Quality and Supporting Patient Safety



Report of the Governor's Task Force on Nurse Workforce and Patient Care

December, 2007

Facilitated by  The Adams Group
Facilitation • Public Engagement • Strategy

Table of Contents

Executive Summary	3
I. Introduction	6
II. Nursing-Sensitive Measures	6
A. GUIDING PRINCIPLES FOR A QUALITY MEASUREMENT PROCESS FOR NURSING.....	7
B. NURSING-SENSITIVE MEASURES.....	8
C. ACUITY MEASUREMENT.....	10
V. Nursing Workforce Shortage: Education	10
A. NURSE EDUCATION PUBLIC POLICY RECOMMENDATIONS.....	11
B. PROVIDING INCENTIVES TO NEW GRADUATES TO PRACTICE IN COLORADO.....	15
C. CREATING SCHOLARSHIPS TO ADDRESS THE NURSE SHORTAGE.....	17
VI. Health Care Workforce Shortage: Retaining Nurses	18
A. RETENTION FACTORS.....	19
B. PILOT PROGRAM ON PLANNING FOR PATIENT CARE.....	20
VII. Educating the Public	21
VIII. Conclusion	23
IX. Appendices	24
A. TEXT OF EXECUTIVE ORDER.....	24
1. Background and Need.....	24
2. Mission and Scope.....	24
3. Membership.....	25
4. Staffing and Resources.....	26
5. Directive.....	26
6. 6. Duration.....	26
B. TABLE COMPARING SCOPE FROM EXECUTIVE ORDER WITH TASK FORCE ACTIONS.....	27
C. TASK FORCE MEMBERS.....	29
D. NON-PUBLIC POLICY RECOMMENDATIONS ON EDUCATION.....	31
E. PROFESSIONAL NURSING PRACTICE INVOLVEMENT IN PLANNING FOR PATIENT CARE PILOT PROGRAM DESCRIPTION.....	36

Executive Summary

Nursing is fundamental to high quality health care and patient safety. Nurses are on the front line of care in nearly every care setting, and their contributions to the current and future health of Colorado residents are vital.

In recognition of this critical role, Governor Bill Ritter signed Executive Order B 002 07 on March 29, 2007 creating the Governor's Task Force on Nurse Workforce and Patient Safety. The executive order calls for a diverse group of stakeholders to develop recommendations focused on three areas:

- nursing-sensitive quality measures
- nursing education and
- retaining experienced nurses in the workforce.

The process used by the Task Force is distinguished by the breadth of its membership, which includes appointees from Service Employees International Union's (SEIU) Nurse Alliance of Colorado, Colorado Hospital Association, Colorado Nurses Association, Colorado Organization of Nursing Leaders, Colorado Council on Nursing Education, Colorado Medical Society, Colorado Center for Nursing Excellence, Colorado Department of Public Health and Environment, two members of the Colorado House of Representatives and two members of the Colorado Senate. The task force was housed by the Colorado Hospital Association's Colorado-Center for Advancing Patient Safety, and was facilitated by The Adams Group.

An important feature of the executive order was its direction to the Task Force to make every effort to reach agreement on its recommendations by consensus.

The Task Force makes the recommendations below to the Governor and General Assembly. They are expanded upon in the full report.

Nursing-Sensitive Quality Measures

Nursing-sensitive quality measures are currently an important issue, both in Colorado and around the nation. The Joint Commission and the National Quality Forum are currently undertaking a field test of 15 nursing-sensitive quality measures. Due to the heightened interest in nursing quality in Colorado, the field test includes a significant oversampling of Colorado hospitals, yielding both valuable data for the state as well as contributing to the national effort to improve quality.

The Task Force recommends that Colorado hospitals collect and report on the Hospital Report Card the following nursing-sensitive measures:

- skill mix
- nursing hours per patient day

- the Practice Environment Scale
- voluntary turnover
- falls prevalence (rate)
- falls with injury
- pressure ulcer rate (already on Hospital Report Card)
- RN education
- RN certification.

Recommendations to Address Nursing Education Issues

Colorado, like the rest of the nation, is experiencing a nursing shortage. While the causes are complex, there is consensus that changes need to be made to the state's nurse education system in order to provide high quality education to more nurses. This issue has three facets: availability of nursing faculty, ensuring that nurses stay in the state after graduating, and providing scholarship assistance for nursing students.

Increasing the number of nursing faculty

One of the most pressing—and fixable—issues with nursing education and the nurse workforce is the number of nurses who serve as faculty to educate others. The Task Force makes the following recommendations to increase the number of faculty available to educate nurses:

- Increase salaries for nurse faculty at public schools
- Redesign faculty education loan forgiveness programs
- Redesign and revise Colorado State Board of Nursing Chapter II Rules for Nursing Education or redefine by formal Board policy
- Conduct a comprehensive nursing faculty workforce assessment
- Maintain the requirement of a Masters Degree in Nursing to teach
- Leverage public/private partnerships to continue to build educational infrastructure, including faculty preparation.

The task force also makes non-public policy recommendations to nursing schools and employers, which are detailed in Appendix D.

Recommendations on Incentives for New Graduates to Practice in Colorado

Retaining nurses educated by Colorado institutions is a key strategy to support the state's nursing workforce. The following are intended to improve the likelihood that these nurses will successfully integrate into the state's nursing workforce:

- Strategically target public sector incentives

- Adopt a new graduate transition into practice model based on a residency model
- Consider requiring continuing education for nurses
- Increase required clinical nursing hours in nursing education programs

Recommendations on Creating Scholarships to Address the Nurse Shortage

Carefully designed scholarships for nursing students could help to both ensure that nurses are being educated for the right type of practice settings as well as to increase the overall number of nurses in practice. Recommendations in this area include:

- Establish evidence-based priorities for financial assistance
- Adopt post-graduation/licensure loan forgiveness design
- Encompass educational fees currently outside most scholarship programs
- Better publicize scholarships
- Require two years of service for each year of education financed by the state

Recommendations on Retaining Nurses Already Working in Patient Care Settings

Direct care nurse retention is a critical issue for Colorado. Research has found that factors important to retention include having adequate resources and staffing, sufficient support staff, support from supervisors, and having empowerment and autonomy. These are complex factors in the work environment. In order to better understand and improve them, The Task Force recommends a collaborative pilot study designed to provide reliable and practical information on how to ensure effective participation of direct care nurses in decision making in planning for staffing and other issues of importance to nursing. Due to the public importance of this pilot and the need for transparency, this pilot should be directed by a planning committee that will ensure a high-quality process. We recommend that the General Assembly pass legislation requiring this pilot under the direction of a planning committee.

I. Introduction

Nursing is vital to patient safety and patient care. Any attempt to improve patient safety and quality of care must take into account this fundamental component of the health care system. Colorado is positioned to be a leader among states in quality of health care in part because of proactive leadership to support nurses both today and in the future. This report is the result of a collaborative effort by a broad cross-section of organizations that care about nursing. Demographic trends indicate the long-term demand for Colorado nurses is projected to grow 45%, requiring more than 2,000 nurses annually or nearly 15,000 new jobs over the next 10 years. Convened under the authority of Governor Ritter's Executive Order B 002 07 (see Appendix A) signed on March 29, 2007, this Task Force has made every effort to explore a variety of options to support nursing in the state and to do so by consensus in order to ensure the speediest implementation of the recommendations.

This report focuses on recommendations in three areas: nursing-sensitive quality measures, education, and retaining nurses currently practicing in care settings. The primary focus of this report is on nursing in licensed health care facilities. Given the current nurse shortages that some direct care settings are experiencing, the even greater shortages predicted for the future, and the clear value of nurses to the health of the state, these recommendations are presented with the greatest urgency to Governor Ritter and the Colorado General Assembly.

A note on language: this report uses the term "direct care nurse" in most instances to refer to nurses who are on the front line of delivering high quality care to patients. Other terms that could be used include "bedside nurse" or "staff nurse." Each of these terms has different connotations, but all refer to the hard working, professional nurses providing care and helping to ensure patient safety.

II. Nursing-Sensitive Measures

Patient safety and quality of care are among the most important issues in health care. In recognition of the critical role of nurses to ensure safety and quality, The Joint Commission, a national body that accredits and certifies over 15,000 health care organizations and programs in the United States, announced in February, 2007 that it would undertake a national project to field test a set of fifteen nursing-sensitive quality measures endorsed by the National Quality Forum (NQF). The field test was originally intended to involve only 50 hospitals nationally, but due to Colorado's current interest

and activity in nursing-sensitive measures, the Task Force endorsed an over sampling of an additional 20 Colorado hospitals for the study. This will add to the value of the national project as well as produce more meaningful data for Colorado. It will also help to capitalize on the momentum the state has on this issue. Recruitment and administrative support for the over sampling was led by the Colorado-Center for Advancing Patient Safety. The field testing will be completed in August, 2008 and a report is expected by the end of that year.

Health care performance measurement is further supported in Colorado by the Hospital Report Card, a web-based resource (www.cohospitalquality.org) unveiled to the public in November of 2007. This tool establishes Colorado in the forefront of states that are reporting on patient safety and health care quality measures. It presents an ideal platform for the nursing-sensitive measures called for by the Task Force. The report card was mandated by House Bill 1278 in 2006 and was developed with leadership from the Colorado Hospital Association and the Colorado Department of Public Health and Environment.

A. Guiding Principles for a Quality Measurement Process for Nursing

Item A of the executive order directs the Task Force to “develop guiding principles that will lead to a quality measurement process for nursing.” The Task Force discussed this item during two of its meetings and adopted the following:

Goal: Develop a quality measurement process for nursing that initially focuses on the hospital setting and leads to improvements in patient care, patient safety, RN retention and the RN work environment.

Measures should:

- Provide information to the residents of Colorado that is useful and understandable, and can be used to educate them to be effective healthcare consumers.
- Be nationally endorsed and vetted, but may include new, evidence-based measures for Colorado.
- Comprise a standardized qualitative and quantitative data collection system that is feasible and economically sound.
- Ensure that direct care nurses have the opportunity to participate in decision-making about how to use data to improve patient care.

This goal and set of principles were used to develop the Task Force's recommendations below.

B. Nursing-Sensitive Measures

The Task Force reviewed and studied national examples of nurse-staffing reporting and quality measures. The Task Force focused its attention on two of the best-respected sets of measures: The National Database of Nursing Quality Indicators (NDNQI) and the National Quality Forum (NQF)-endorsed measures that are being field-tested by the Joint Commission. The Task Force received presentations from experts on each of these two sets of quality measures.

Recommended Measures

The measures below were adopted as defined by NQF. NQF and The Joint Commission have an elaborate technical manual that gives precise definitions for the measures and specifications for how data is collected. More information can be found at <http://www.qualityforum.org/nursing/>.

Skill Mix: Percentage of registered nurse, licensed vocational/practical nurse, unlicensed assistive personnel, and contracted nurse care hours to total nursing care hours.

Nursing Hours per Patient Day: Number of registered nurse hours per patient day and number of nursing staff hours (registered nurse, licensed vocational/practical nurse, and unlicensed assistive personnel) per patient day.

Practice Environment Scale (PES): Nursing Work Index: Composite score and scores for five subscales: (1) nurse participation in hospital affairs; (2) nursing foundations for quality of care; (3) nurse manager ability, leadership and support of nurses; (4) staffing and resource adequacy; and (5) collegiality of nurse-physician relations.

Voluntary Turnover: Number of voluntary uncontrolled separations during the month by category (RNs, APNs, LVN/LPNs, NAs).

Falls Prevalence (rate): Number of inpatient falls per inpatient days.

Falls with Injury: Number of inpatient falls with injuries per inpatient days.

The following measure is already collected and reported on the Hospital Report Card:

Pressure Ulcer Rate

The following measures are defined by the NDNQI.

RN Education and RN Certification: These measures count all RNs (full time, part time, PRN) with direct patient care responsibilities at 50% or greater and determines each one's highest nursing degree and national certifications.

In addition to recommending the above measures for the Hospital Report Card, the Task Force also sees merit in the RN Job Satisfaction Scale, which is a tool developed and

administered by NDNQI. The Task Force recommends this tool to hospitals as a supplement to the Practice Environment Scale, but does not at this time recommend it as a mandatory addition to the Hospital Report Card.

Implementation of Measures

The Task Force recommends these measures for collection by Colorado hospitals as soon as possible. Furthermore, the Task Force Recommends that the Colorado General Assembly pass legislation directing the Hospital Report Card Implementation Committee (HRCIC) to add these measures as soon as is practical. The HRCIC was created in response to the Colorado Hospital Report Card Act, passed in 2006. The Task Force recognizes that the current field testing by the Joint Commission may produce information that could alter their definitions or demonstrate that some are not feasible to collect and/or report. Data collection for that study will end in August 2008, and a report will be available near the end of 2008. Therefore the Task Force recommends that the Hospital Report Card Implementation Committee begin planning for their implementation so that they can be added as soon as possible. The Implementation Committee should also determine whether measures should be reported at the hospital or the unit level.

The Task Force also recommends, consistent with its principles stated above, that direct care nurses be involved in discussions about the implementation of the measures.

Small and Rural Hospitals

In order to address the special circumstances of small, rural and critical access hospitals in Colorado, The Task Force created the Small and Rural Hospital Work Group. The work group discussed the issues related to small number reporting and made several recommendations:

- Consider aggregating some small and rural hospitals by category such as critical access hospitals, or by region, when comparing them to large hospitals.
- Consider a separate reporting system or web page for small and rural hospitals with a more detailed breakdown by bed size.
- Report measures such as falls biannually to smooth out data bumps.
- Prior to mandating the collection of the above measures, conduct a Colorado-based pilot project similar to the Joint Commission study whereby the recommended measures would be tested at hospitals of all sizes, including small and rural, across the state. Provide education and data definitions and collect measures over at least two quarters. Adjustments could be made based on the pilot experience.

- Provide an opportunity for an explanation of the issues impacting the reporting of data by small and rural hospitals, especially in comparison to large hospitals.

The Task Force recommends that the Hospital Report Card Implementation Committee take the above points into account as it determines how to report the measures.

C. Acuity Measurement

Acuity can be defined as patient factors that drive workload intensity. Acuity—how to measure it and its relationship with staffing, quality and patient safety—has been a recurring issue in the Task Force's discussions. It is currently not measured in a standardized way across all hospitals, which makes it difficult to create meaningful benchmarks for staffing. Severity-adjustment systems that rely on administrative data only recently have been developed and are in widespread use, such as in the current Colorado Hospital Report Card.

The Task Force discussed the possibility of using the Case Mix Index (CMI) as a way to measure acuity. While the Task Force recognizes that recent studies have not supported CMI as a predictor of nursing workload, CMI is one indicator of patient severity that may help in the evaluation of patient outcomes and nurse staffing. Since there is not currently a standard or strong relationship of acuity to nursing workload planning, this is an area that needs further study.

V. Nursing Workforce Shortage: Education

Nursing is an art;
and if it is to be made an art,
it requires as exclusive a devotion,
as hard a preparation,
as any painter's or sculptor's work;

for what is the having to do with
dead canvas or cold marble,
compared with having to do with the
living body - the temple of God's spirit?

It is one of the Fine Arts;
I had almost said
the finest of the Fine Arts

- Florence Nightingale

The Governor's executive order emphasizes the relationship between the nurse workforce and education. It directs the Task Force to, "consider and recommend potential legislative solutions to healthcare workforce shortages, including, but not

limited to, finding ways to increase the number of faculty available to educate nurses, providing incentives for nursing students who stay in the state after graduation and work in patient care settings, [and] creating additional scholarships to address the nursing shortage."

Following a presentation and discussion on these issues, the Task Force created a work group to develop recommendations on these issues. Recommendations directed to public policy makers are below, and recommendations to hospitals and schools of nursing are included in Appendix D.

A. Nurse Education Public Policy Recommendations

Nursing Faculty Issues

Colorado has a critical nursing faculty shortage. According to the Colorado Center for Nursing Excellence, Colorado's shortage of qualified nursing faculty at its two-year nursing schools is three times the national average and at our four-year schools it is nearly double the national average.¹ There is a pronounced shortage of clinical nursing instructors.

Solving the nurse educator shortage is crucial to eliminating Colorado's nurse workforce shortage. The inadequate pool of faculty constrains nursing education programs from admitting qualified applicants and also compromises the quality of clinical learning opportunities. This market failure of maintaining an adequate supply of nurse educators to meet the demand for educating the necessary numbers of nurses to provide safe patient care for the citizens of Colorado has prompted the Task Force to call for immediate state legislative intervention. The Task Force makes the following recommendations in order to impact the nurse educator shortage as quickly and effectively as possible.

Recommendation 1: Increase Salaries for Nurse Faculty at Public Schools

Nursing educators are hurt by two wage gaps: the difference between clinical and academic salaries, and the gap between wages in Colorado and nationally. In Colorado, faculty compensation now ranges from one-third to two times lower than clinical salaries.² Colorado currently ranks 26th in the nation for average salaries for

¹ Colorado Center for Nursing Excellence, 2004 Colorado Nursing Faculty Supply and Demand Study (April, 2005)

² Ibid

nurses with PhD degrees and 25th in the nation for non-doctoral nurse faculty salaries at four-year schools.³ Community college salaries are even more troubling: although there is no standardized source for information on community college salaries, one community college reported that its average doctoral nurse faculty salaries are \$20,000 lower than those at four-year schools, and non-doctoral salaries over \$10,000 lower than at four-year schools. As a result, respected nurse faculty members have been recruited away to other faculties with better salaries, benefits and working conditions. A Task Force member reported hiring five nurse educators to tenure-track positions, but all left after a year and doubled their salaries in clinical practice.

In order to stabilize faculty rolls and assist in recruiting new faculty, the Task Force recommends that the state increase nurse educator salaries based on the following funding options:

A. Increasing State Funding for Faculty Positions

Colorado cannot provide quality healthcare to its residents unless it educates more nurses. The majority of nurses in Colorado are educated in public institutions that receive state funding. Therefore, public funds should be appropriated to increase faculty salaries at state nursing schools.

B. Raising Nursing School Tuition

In 2003 over 2600 qualified applicants to nursing schools in Colorado were denied admission due to a shortage of instructors⁴. While higher tuition may be a disincentive for some, the large number of qualified applicants suggests that there would still be adequate interest. Some students may prefer to pay higher tuition rather than delay their entry into nursing school due to a shortage of faculty. Raising tuition also recognizes that students benefit from and should share in the increased costs of a high-quality education that will provide them with a well-paid career.

Unfortunately, raising tuition alone will not cover the total increase in educator salaries and could adversely affect some students, especially in rural areas. Therefore the Task Force recommends that the state fund salary increases primarily with appropriations, rather than dramatic tuition increases, and that any increased revenue based on tuition be applied directly to nursing educator salaries, rather than to the general fund of the schools.

³ Average=median. American Association of Colleges of Nursing, Research and Data Center, 2007. AACN is not responsible for errors in reporting by respondent institutions.

⁴ Colorado Dept. of Labor and Employment, Dec. 4, 2006 estimates

Recommendation 2: Redesign Faculty Education Loan Forgiveness Programs

Although Colorado adopted the Loan Incentive for Teachers (LIFT) Nursing Pilot Program in 2006, rules set by program administrator College Invest complicate the process to such an extent that little assistance is actually being rendered.⁵ Currently only faculty members who attended school in Colorado, received educational loans to pay for school, or are employed full-time at public schools or "participating" private institutions are eligible for loan forgiveness. Additionally, the pool of state funds dedicated to loan forgiveness may not be enough to meet demand once restrictions are lifted. In order to give current faculty an immediate incentive to continue teaching and give prospective faculty the means to obtain advanced degrees, the Task Force recommends that the state revamp the loan forgiveness rules in a fashion that is in keeping with the needs and realities of adult learners and increases funding for state loan forgiveness.

The Task Force also recommends the creation of publicly funded scholarships to encourage Associate Degree and Diploma prepared nurses to get their BSN degree. Only a small percentage of these nurses go back to school to get their BSN degrees, which exacerbates the faculty shortage.

Recommendation 3: Redesign and Revise the Colorado State Board of Nursing Chapter II Rules for Nursing Education or Redefine by Formal Board Policy

The State Board of Nursing sets the ratio of full to part-time faculty for nursing schools, as well as the definitions of full-time and part-time faculty. While schools struggle to hire full-time faculty, these ratios restrict the ability of schools to hire available part-time faculty, restrict the number of students those faculty can teach and limit program offerings. The Task Force recommends that the State Board of Nursing revise the rules relating to part-time and full-time faculty ratios or institute policy guidelines to define the calculation for ratios of full-time to part-time faculty in order to give schools greater discretion over how to use faculty with the requirement that they maintain high quality programs.

Recommendation 4: Conduct a Comprehensive Nursing Faculty Workforce Assessment

At this time, the state does not collect data on faculty supply and demand. A

⁵ As of 2006, when the LIFT program was adopted, only 2 applications have been approved, two are pending. Four applicants were denied due to the fact that they are employed by private institutions that do not participate in the College Opportunity Fund. Source: College Invest. Anecdotal evidence from nurse educators indicates that several educators contacted the College Invest Program by phone and were told that they would not qualify and did not apply. Therefore, the above numbers may not reflect the true level of need and interest in the program. Nurse educators who are employed part-time or have paid for courses other than by educational loans such as credit cards are not eligible for the program.

comprehensive assessment would help to structure the conversation and target actions about faculty recruiting, school collaboration, and funding. The Task Force recommends that the State Board of Nursing be funded and directed to conduct an on-going statewide assessment of nursing faculty across all programs. While the Board of Nursing should maintain oversight of the assessment, it may delegate its authority to request, receive, process and make available all necessary data.

Recommendation 5: Maintain the Masters Degree in Nursing Requirement to Teach

While the nursing shortage creates a temptation to lower educational standards, this would be a stopgap solution that would compromise the quality of nursing programs and would make Colorado an outlier in nursing education. The Colorado Board of Nursing requires two-thirds of a nursing school's faculty to have at minimum a Masters degree, and national accrediting organizations require 100% of faculty in RN programs to hold a minimum of a Masters Degree in Nursing. Accordingly, the Task Force joins the Colorado Council of Nurse Educators in recommending preserving the Masters Degree requirement for faculty.

Recommendation 6: Leverage Public/Private Partnerships to Continue to Build Educational Infrastructure, Including Faculty Preparation

Over the past five years the Colorado Department of Labor and Employment (CDLE) and the Colorado Workforce Development Fund have applied for and received over \$10,000,000 in federal grants from the US Department of Labor to improve and expand nursing education, staffing and retention.⁶ According to CDLE, agency efforts would be even more effective if the state provided matching funds for every federal dollar received. Not only would this double the money that could be applied to innovative programs, it would allow for CDLE to apply for additional grant programs that require matching state funds.

In order to continue the extraordinary work of the CDLE in leveraging incumbent worker programs, the Task Force strongly recommends that:

- Governor Ritter maintain the CDLE focus on the nursing workforce
- Governor Ritter direct the legislature to appropriate state matching funds for federal money.

⁶ Information as of October 2007. Source: Colorado Department of Labor and Employment, Workforce Programs Operations

- Governor Ritter direct all state agencies to conduct an assessment of their ability to leverage funding from their federal counterparts in support of nursing faculty and nursing education.
- Colorado's state legislators and agencies work closely with its U.S. Congressional delegation to secure additional federal funding for nurse workforce projects.

Other Actions to Assist Nurse Development, Including Nursing Faculty

The Task Force recognizes that not all challenges presented by the nursing faculty workforce shortage can be resolved with public policy solutions. Accordingly, the Task Force recommends the following "promising practices" to healthcare employers and nursing programs:

- Exposing students to possible academic career paths early in their nursing programs
- Recognize life-long learning as a key component of nursing
- Increasing incentives and support for continuing education
- Conducting succession planning in schools
- Sharing resources among schools
- Leveraging public-private partnerships
- Supporting joint appointments for clinical scholars
- Increasing clinical sites
- Encouraging adoption of Magnet forces in Colorado facilities

These recommendations are further detailed in Appendix D.

B. Providing Incentives to New Graduates to Practice in Colorado

Colorado's growing demand for nurses plays out against the national nurse shortage, which could engender competition among states for new graduates and relocating nurses. In order to ensure an adequate supply of nurses to care for its residents, Colorado must retain the nurses its schools graduate. Therefore, the Task Force makes the following recommendations to retain new graduates in Colorado.

Recommendation 1: Strategic Targeting of Public Sector Incentives

The state has limited funding and nursing personnel. Strategically targeting public sector incentives such as scholarships, loan forgiveness opportunities and internships would direct practitioners toward targeted areas of great need, including:

- Practice within rural and/or medically underserved communities;
- Long-term care practice;
- Areas understaffed with bilingual nurses; and
- Public sector responsibilities such as public health and working with disabled populations, prisons and schools.

However, without the necessary data called for above the state cannot make evidence-based decisions regarding priority areas of need. The Task Force recommends that the Board for Nursing or another appropriate state agency collect and assess data from around the state in order to identify and prioritize areas of need, to determine which state agency is funding which specialties and whether current capacity meets demand, and to assist nursing schools to develop the necessary programmatic specialties and clinical rotations. The Task Force further recommends that any students who receive public funding from Colorado be required to serve 2 years for each year of education financed by the state.

Recommendation 2: Adopt New Graduate Transition into Practice Model Based on a Residency Model

Colorado hospitals are tasked increasingly with ramping up new graduates who lack the clinical experience necessary to handle much sicker patients and challenging technology. This is a retention issue, as well as a serious public safety issue, as new nurses who are inadequately supported during transition are more likely to leave it and not return. Although medical, pharmacy and chaplaincy programs include residencies, which receive Medicare Graduate Medical Education pass-through funds to offset the cost of these residency programs, there is no such program for nursing education. Currently the University of Colorado Health Sciences Center is working with 32 other teaching hospitals nationwide to accredit a nursing residency model through the Academic Medical Centers Partnership.

In order to address the public safety issue of under-prepared graduates, the Task Force strongly recommends that Governor Ritter encourage the Colorado Congressional delegation to require that the Centers for Medicare and Medicaid fund nursing residencies. Lobbying for these funds should be a significant activity for labor unions, professional organizations and hospitals as well.

Recommendation 3: Consider Requiring Continuing Education for Nurses.

Research has shown that nurses with more education provide better care and result in fewer deaths, yet the majority of nursing degrees granted are at the Associates

level with less than 20% of Associates nurses returning to school for further education.⁷ Nurse professional development must be made a priority to ensure quality patient care for Coloradans. Seventy percent of state boards require some form of continuing education.⁸ Although the Colorado Nurse Practice Act authorizes the Board of Nursing to require continuing education as a condition of renewal of licenses, there is no such requirement for nurses now. The Task Force recommends that the Board research, investigate and make recommendations on the efficacy of requiring continuing education for nurses.

Recommendation 4: Increase Minimum Clinical Hours in Nursing Education Programs

Increasing the number of required clinical hours could improve the transition from education into practice through increased opportunities for patient care, confidence in knowledge and skills, and critical thinking. Both graduates and employers have identified the need for additional clinical preparation prior to entry into practice. Increased clinical experiences during the educational process could help employers integrate new nurses into situations where their skills may mean the difference between life and death. Increasing the number of required clinical hours, however, may also have adverse impacts on nursing schools due to the limited number of clinical placements available.

The Task Force believes that the current level of 750 clinical hours may be too low and recommends that the Board of Nursing explore raising the number of clinical hours required.

C. Creating Scholarships to Address the Nurse Shortage

Scholarships can be an effective way to achieve certain goals. The following recommendations aim to assist the state in ensuring that public funding is targeted and well-spent.

Recommendation 1: Establish Evidence-Based Priorities for Financial Assistance

Public scholarships, grants and loans should direct students toward specific areas of

⁷ The Registered Nurse, Population: Findings From the National Sample Survey of Registered Nurses. Rockville, MD: US Dept of Health and Human Services; March 2000.

⁸ Information retrieved from the National Council on State Boards of Nursing website: https://www.ncsbn.org/Continued_Competency_Mechanisms.pdf

need around the state such as to faculty positions, public health, geriatrics, bi-lingual positions, RN—BSN programs, mental health, and acute care.

Recommendation 2: Adopt Post Graduation/Licensure Loan Forgiveness Design

Loan forgiveness criteria should be revised to ensure that all settings, rural and urban, address the above list of priorities. To impact shortages most effectively, the state should grant loan forgiveness if the student agrees to work in one of the above areas of need, regardless of setting.

Recommendation 3: Encompass "Educational Fees" Currently Outside Most Scholarship Programs.

The rising costs of books and fees for criminal background checks, immunizations for health profession students, labs and uniforms can be a significant burden for nursing students, including those returning to school for advanced degrees. Scholarships should consider including financing for these program expenses.

Recommendation 4: Better Publicize Scholarships

Scholarships should be well-publicized so that nurse managers, nursing students, retirees and nurses returning to the workforce could use the scholarships for various programs, including refresher courses. The Task Force recommends that the Colorado Commission on Higher Education and nursing schools work together to create a readily accessible, visible repository of information about all sources of funding for nursing education.

Recommendation 5: Leverage Public Sector Incumbent Worker Programs to Address Specialty Practice Shortages

The Colorado Department of Labor and Employment and the Colorado Workforce Council have been very effective in partnering with a variety of community and nursing organizations and using discretionary funds to address nursing workforce shortages. Targeting specialty practice shortages with discrete distributions of scholarships could help introduce new student to necessary areas and assist in eliminating shortages.

VI. Health Care Workforce Shortage: Retaining Nurses

The 2005 Colorado RN Survey, administered by the Colorado Health Institute to nurses

renewing their licenses, provided some alarming insights into the nurse workforce in Colorado. According to the survey, two-thirds (66%) of survey respondents were over 45 years old. About one-quarter (27%) of survey respondents plan to leave nursing in the next 10 years. At the same time the nurse workforce will shrink due to the retirement of experienced "baby boom" nurses and the long-term demand for Colorado nurses is projected to grow 45%, requiring more than 2,000 nurses annually or nearly 15,000 new jobs over the next 10 years.⁹ The vast majority of projected job openings are new jobs in addition to the replacements required for retiring nurses. In order to meet demand and provide quality health care for its citizens, Colorado must not only educate and train nurses, it must retain them.

A. Retention Factors

Research has shown that the following five factors are most important for nurse retention:

1. Adequate resources, including adequate staffing, balanced workload, sufficient support staff, and sufficient physical resources such as supplies and equipment
2. Supervisor support
3. Professional development
4. Empowerment and autonomy
5. Good working relationships: peer cohesion/teamwork and good collaboration with colleagues (e.g. physicians)

When asked by researchers in one study to recommend solutions to the current nursing shortage, direct care nurses made the following suggestions:

- o Decreased workloads
- o More support staff
- o Empowered management
- o Active response to staff concerns
- o Increased salaries
- o Support for improved nurse-physician relationship
- o Improved job orientation; and
- o Paid continuing education.

Successfully addressing these issues will require actions in a variety of areas. For example, reducing workload does not necessarily entail adding more nurses to a unit. Instead, workload could be reduced with a better skill mix (i.e. more experienced nurses

Source: Colorado Department of Labor and Employment, 2007

or nurses with higher degrees), increased support staff, or other solutions. Nurse empowerment, i.e. allowing direct care nurses to change their work environment, is especially key.

The Task Force makes the following observations, based on a presentation by nurse researcher Dr. Lynn Unruh:

- Staffing plans should be supported over mandated ratios as ratios are fixed and cannot be implemented with the necessary flexibility for staffing.
- Staffing plans should be evidence-based and somewhat standardized, but allow for individualized hospital staffing.
- Legislation on gathering data on staffing, work conditions, and nurse satisfaction is necessary to show that better staffing leads to better patient and financial outcomes.
- Collecting and publishing retention data based on NQF-endorsed nursing-sensitive measures such as the Practice Environment Scale, turnover, and skill mix is necessary to inform public policy and private practice. Legislating these measures would give the state necessary retention information, inform nurses about hospitals that are more desirable employers, and encourage outlier hospitals to improve.

B. Pilot Program on Planning for Patient Care

Evidence has indicated that involving nurses in decision making that affects nursing practice is beneficial. Nursing participation needs to be evident at both the organizational level and at the direct care or unit level. Nurses involved in providing direct care have critical information and knowledge to provide in planning for care and they need to be key participants in the planning process.

However, it is not clear what model or models work best to involve direct care nurses. Therefore, the Task Force recommends a pilot project designed to provide reliable and practical information on how to ensure effective participation of direct care nurses in decision making. Due to the public importance of this pilot and the need for transparency, this pilot should be directed by a planning committee that will ensure a high-quality process. We recommend that the General Assembly pass legislation requiring this pilot under the direction of a planning committee. Appendix E provides further detail on the pilot and the role of the planning committee. Funding for the Pilot may be provided from public or private sources, including gifts, grants and donations. Due to the important public purpose of this pilot, we recommend that the General

Assembly appoint all or some portion of the funds needed. Availability and commitment of funding is required before the Pilot begins. All funders are to be approved by consensus of the members of the planning committee.

VII. Educating the Public

Item G of the Executive Order directs the Task Force to “evaluate what should be done to educate the public in Colorado about the nursing shortage, nurse staffing plans, and other quality and patient safety initiatives.” The Task Force received a presentation¹⁰ on public education campaign considerations and recommends that the state:

- Survey consumers to determine if they understand the nurse/quality connection.
- Develop and make use of a set of talking points to educate consumers, providers and decision-makers.
- Consider conducting a consumer public education campaign that employs advertising, news stories, websites and speaking opportunities with influential groups such as legislators, town halls, service clubs and the League of Women Voters
- Make consumers aware of multiple Colorado healthcare websites such as the Hospital Report Card, Colorado Hospital Association (CHA), Colorado Medical Society (CMS), Colorado Nurses Association, Colorado Center for Nursing Excellence, consumer organizations, chambers of commerce, etc. via a dedicated websites with extensive links.
- Reach providers via sessions at CMS and CHA annual meetings, a joint conference on the connection between nursing and quality, newsletter articles and seminars for medical students.
- Target decision-makers with direct mail, tours of clinical sites, and cost-benefit analyses of various programs.
- Conduct on-going research on consumer awareness via phone surveys, web hit tracking and ad impressions.

The above recommendations could be carried out by either private or public organizations. However, due to the nature of the tasks, a public/private approach would likely be most effective. The Colorado Department of Public Health and Environment or

¹⁰ Edie Sonn of Strategic Policy Communications, made a presentation to the Task Force at its November 30 meeting.

some other state agency should be designated to initiate this public education campaign.

VIII. Conclusion

The magnitude of the challenges of the nurse workforce and patient safety and quality are tremendous, but with concerted action Colorado can take steps now to ensure that patient care is not adversely affected. The recommendations in this report—if implemented—would go a long way towards ensuring that Colorado will have the nurse workforce it needs for a safe and high-quality health care system.

IX. Appendices

A. Text of Executive Order

B 002 07 EXECUTIVE ORDER Creating the Nurse Workforce and Patient Care Task Force

Pursuant to the authority vested in the Office of the Governor of the State of Colorado, I, Bill Ritter, Jr., Governor of the State of Colorado, hereby issue this Executive Order creating the Nurse Workforce and Patient Care Task Force ("Task Force").

1. Background and Need

Hospitals are essential to the communities they serve—as care giving institutions, employers, educators, purchasers and major contributors to Colorado's economy. Community hospitals and their staffs are committed to providing quality patient care twenty-four hours a day, seven days a week. The blue "H" along the highway is a beacon of hope and help to thousands of Coloradoans in need of emergency care. Colorado patients depend upon hospitals to provide safe and effective care. To this end, nurses and health care professionals are an invaluable and essential component of ensuring patient safety and quality care.

Patients and their families will benefit from information that helps them learn more about each hospital's commitment to patient safety, and health care providers have a responsibility to provide information that is helpful to patients and families so they understand what to expect when they receive health care services.

There is a national recognition that nursing-focused performance measures are an important indicator of the quality of patient care, and there is an ongoing discussion about which measures are of best use to consumers. It is in the interest of Colorado consumers for hospitals to disclose information regarding the quality of patient care. Collection and disclosure of nursing-focused performance measures should be feasible for hospitals to provide and meaningful for consumers.

Hospitals and nurses in Colorado are committed to working together in a collaborative fashion to compile reliable, relevant, and comparable data to ensure that Colorado consumers and nurses have the best information available to aid in making critical decisions about where to receive their care. This information will enable patients to make wise choices about nursing quality, which will improve patient safety and provide greater satisfaction to the workforce. The work of the Nurse Workforce and Patient Care Task Force will empower consumers of healthcare and enhance nursing satisfaction, while improving patient safety and the quality of care provided in Colorado hospitals.

2. Mission and Scope

The Task Force shall develop standards and processes for the measurement and disclosure of nurses' contributions to the quality of patient care in licensed health care facilities. The Task Force shall also evaluate the environment of nursing practice in Colorado.

To those ends, the Task Force shall:

- A. Develop guiding principles that will lead to a quality measurement process for nursing.
- B. Review and study national examples of nurse-staffing reporting and measures, and determine what impact on patient outcomes has been demonstrated.
- C. Determine how best to standardize nurse-staffing data and reporting of such measures among all hospitals across Colorado.
- D. Evaluate and report the factors and variables that are involved in nurse-staffing decisions that impact the quality of patient care.
- E. Consider and recommend potential legislative solutions to healthcare workforce shortages, including, but not limited to, finding ways to increase the number of faculty available to educate nurses, providing incentives for nursing students who stay in the state after graduation and work in patient care settings, creating additional scholarships to address the nursing shortage, and retaining nurses who already work in patient-care settings.
- F. Determine what staffing information would be of value to patients when made publicly available and how best to provide this information to patients and patients' families.
- G. Evaluate what should be done to educate the public in Colorado about the nursing shortage, nurse staffing plans, and other quality and patient-safety initiatives.
- H. Make recommendations regarding how and in what form evidence-based nurse staffing information should be added to the Hospital Report Card, as established in C.R.S. § 25-3-602.

The Task Force shall periodically update both the Governor's office and the leadership of the Colorado General Assembly during the period of their deliberations. The Task Force shall report its recommendations to the Governor and the General Assembly by December 31, 2007.

3. Membership

- A. The Task Force shall be composed of fourteen (14) voting members and seven (7) *ex-officio* members, appointed as follows:
 - 1) The Colorado Hospital Association shall appoint three voting members,
 - 2) one of which shall be designated as a co-chair of the Task Force.
 - 3) The Service Employees International Union (SEIU) Nurse Alliance of Colorado shall appoint three voting members, one of which shall be designated as a co-chair of the Task Force.
 - 4) The Colorado Nurses Association shall appoint three voting members of the Task Force.
 - 5) The Colorado Organization of Nursing Leaders shall appoint three voting members of the Task Force.
 - 6) The Colorado Council on Nursing Education shall appoint two voting members of the Task Force.
 - 7) The Colorado Medical Society, the Colorado Center for Nursing Excellence, and the Department of Public Health and Environment shall each appoint one *ex-officio* member of the Task Force.
 - 8) In consultation with the President of the Senate and Speaker of the House of Representatives, the Governor will appoint two members of the Colorado House of Representatives and two members of the Colorado Senate to serve as *ex-officio* members of the Task Force.
- B. *Ex-officio* members shall be non-voting members of the Task Force.

- C. The Task Force shall have two co-chairs, to be designated as provided in paragraphs (A) (1) and (2), above.
- D. The Task Force shall make every effort to reach consensus on its final recommendations. Final recommendations shall only be adopted upon a two thirds vote of the Task Force.

4. Staffing and Resources

The Colorado Hospital Association's Center for Advancing Patient Safety (C-CAP), a section 501(c)(3) non-profit organization, shall house the Task Force. A project coordinator and meeting facilitator shall be retained to staff the Task Force. The resources required for the formation and operation of the Task Force shall be provided through gifts, grants, and donations, which shall be accepted and administered by C-CAP. Members of the Task Force shall serve without compensation.

5. Directive

The Nurse Workforce and Patient Care Task Force is hereby created.

6. Duration

This Executive Order shall remain in force until December 31, 2007, at which time the Task Force shall be dissolved.

GIVEN under my hand
and the Executive Seal of
the State of Colorado, this
29th day of March, 2007

Bill Ritter, Jr.
Governor

B. Table Comparing Scope from Executive Order with Task Force Actions

Executive Order Criteria: Mission & Scope of Task Force	Task Force Recommendation
<p>2 A: Develop guiding principles that will lead to a quality measurement process for nursing</p>	<p>II A, page 7: Task Force has articulated a goal statement and set of principles for measures.</p>
<p>2 B: Review and study national examples of nurse-staffing reporting and measures, and determine what impact on patient outcomes has been demonstrated</p>	<p>II B, pages 7 & 8: Report indicates that the Task Force studied national examples and determined that the best-respected sets of measures are the National Database of Nursing Quality Indicators (NDNQI) and National Quality Forum (NQF) endorsed measures. The report indicates that the Task Force received presentations from experts on each of these systems and the recommended nursing-sensitive measures are tied to the NDNQI, the NQF or the current Hospital Report Card.</p>
<p>2 C: Determine how best to standardize nurse-staffing data and reporting of such measures among all hospitals across Colorado</p>	<p>II B, page 8 & 9: The Task Force is recommending adoption of 7 new nursing-sensitive quality measures and endorsement of 1 existing measure on the Colorado Hospital Report Card (CHRC). The Task Force has noted that there are some implementation challenges that must be addressed prior to adoption of these measures.</p>
<p>2 D: Evaluate and report the factors and variables that are involved in the nurse-staffing decisions that impact the quality of patient care</p>	<p>Seven nursing experts presented (either in person or by phone) to the Task Force over the course of their work. The presentations addressed a range of topics, including nursing sensitive quality measures, nurse retention and nurse staffing issues. The Task Force reviewed various factors including skill mix, nursing hours per patient day and acuity.</p>
<p>2 E: Consider and recommend potential legislative solutions to health care workforce shortages, including, but not limited to finding ways to increase the number of faculty available to educate nurses, providing incentives for nursing students who stay in the state after graduation and work in patient care settings, creating additional scholarships to address the nursing shortage, and retaining nurses who already work in patient-care settings</p>	<p>V & VI, pages 10-20: The bulk of the report is dedicated to recommendations related to educating, recruiting and retaining nurses in Colorado. Education recommendations include raising salaries for nurse faculty and providing targeted scholarships for nurses. Under retention, the Task Force has outlined a pilot program and asks the General Assembly to create it. The Task Force has also made several and non-public policy (private sector) recommendations (Appendix D).</p>

<p>2 F: Determine what staffing information would be of value to patients when made publicly available and how best to provide this information to patients and patients' families</p>	<p>II B, page 8: Two of the recommended nursing-sensitive quality measures directly relate to nurse staffing: (1) Skill Mix: Percentage of registered nurses, licensed vocational/practical nurses, unlicensed assistive personnel, and contracted nurse care hours to total nursing care hours; and (2) Nursing Hours Per Patient Day: Number of registered nurse hours per patient day and number of nursing staff hours (registered nurse, licensed vocational/practical nurse and unlicensed assistive personnel) per patient day.</p>
<p>2 G: Evaluate what should be done to educate the public in Colorado about the nursing shortage, nurse staffing plans, and other quality and patient-safety initiatives</p>	<p>VII: The Task Force received a presentation from a health care communications expert. The Task Force created a series of recommendations based on that presentation.</p>
<p>2 H: Make recommendations regarding how and in what form evidence-based nurse staffing information should be added to the Hospital Report Card, as established in C.R.S. 25-3-602</p>	<p>II B, page 8 & 9: As noted above, the Task Force recommends that the CHRC Implementation Committee (CDPHE and CHA) begin work towards adoption of these measures & that a process be put in place for the review, evaluation, addition or deletion of any other nursing-sensitive measures.</p>

C. Task Force Members

Colleen Goode

Co-Chair
Vice President of Patient Services,
University of Colorado Hospital

Bernie Patterson

Co-Chair
Staff Nurse, Ambulatory Surgical Unit
Boulder Medical Center

Sen. Betty Boyd

(D-Lakewood), Senate District 21

Ned Calonge

Chief Medical Officer, Colorado
Department of Public Health and
Environment

Sue Carparelli

President & CEO, Colorado Center for
Nursing Excellence

Kenneth Cochran

Chief Nursing Officer, LifePoint
Hospitals—Colorado Plains Medical
Center

CJ Cullinan

Staff Nurse, Craig Hospital and Julia
Temple Long Term Care

Mary Pat DeWald

Staff Nurse, Sexual Assault Nurse
Examiner, Integrated Health, Inc.

Eve Hoygaard

President, Colorado Nurses Association
Nurse Practitioner Family Planning Clinic

Judy Hutchinson

Staff Nurse, Orthopedics,
Exempla Lutheran Hospital

Rep. Jim Kerr

(R-Littleton) House District 28

Sen. Ken Kester

(R-Las Animas) Senate District 2

Donna Kusuda

Vice President of Quality and Risk
Management, HealthONE

Kate Mixdorf

Vice President of Nursing/Quality
Operations, Heart of the Rockies
Regional Medical Center

Sharon Pappas

Chief Nursing Officer, Porter Adventist
Hospital

Rep. Jack Pommer

(D-Boulder) House District 11

Kristy Reuss

Department Head, Department of
Health Sciences, Mesa State College

Nancy Smith

Associate Dean and Professor
Beth El College of Nursing and Health
Sciences, UCCS

Patty Stewart

Senior Staff Nurse SICU
Medical Center of Aurora

Kathy Van Soest

Director TCU & CAIR
North Colorado Medical Center

Bob Yakely

Vice Speaker, Colorado Medical Society
House of Delegates

Staff:

Chris Adams

Facilitator
The Adams Group

Lynn Marie Bell

Project Coordinator
The Adams Group

D. Non-Public Policy Recommendations on Education

The Education Work Group recognizes that not all educational challenges can be resolved with public policy solutions. Accordingly, the Work Group recommends the following "promising practices" to healthcare employers and nursing programs in addition to the legislative, statutory and regulatory recommendations detailed earlier.

1. Provide Hands-On Career Guidance in Schools.

Exposing students to possible academic career paths early in their nursing programs could generate interest in teaching and research careers. Identifying and encouraging students to pursue careers in education or targeted specialties is an important step toward emphasizing higher degrees, increasing faculty ranks and filling gaps in necessary practice areas. Just as health professions have incorporated a research model into their system, nursing schools must mentor students with a propensity for research and teaching, and assist them in pursuing these goals.

Based on the foregoing, the Task Force recommends that nursing faculty be more proactive in directing students toward research and teaching careers. Schools should also do the advance planning necessary to inventory faculty skills and future needs so that retiring faculty have the opportunity to mentor junior faculty and students, and transfer skills and knowledge before they are phased out. The Task Force recommends that all schools be responsible for encouraging innovation and sharing of promising practices in how best to accomplish these goals.

2. Recognize Lifelong Learning as a Key Component of Nursing

Because research has shown a direct connection between the educational attainment of the nurse and patient safety outcomes, it is critical that hospitals and schools support educational progression for all nurses. This can be achieved through the following practices:

Emphasize nursing education at the BSN, Masters, PhD and DNP level. There is emerging evidence that BSNs, who are exposed to more clinical rotations, critical thinking opportunities and math and science than Associates nurses, are better prepared for patient care positions, and have a direct link to reduced patient mortality. The BSN is also an important gateway for further academic credentials required by faculty positions. The majority of nurses graduate with Associates degrees, and less than 20% of

those nurses pursue further education. The Task Force calls on all schools of nursing, as well as hospitals, to emphasize the importance to their respective students and employees of advancing their educations, especially leading to the BSN, Masters, PhD and DNP level. Healthcare providers are further recommended to differentiate among nursing degrees by offering increased compensation for higher degrees, and increasing the proportion of BSNs in each unit's skill mix.

Increase incentives and support for continuing education. Continuing education is an integral part of nurse professional development and should be supported so that nurses continue to improve their practice, and patient outcomes, with classes on the latest technology, necessary certifications and advancement toward higher degrees. The Task Force recommends that employers support nurses who advance their education with paid leave, tuition reimbursement, increased salaries for higher degrees and other incentives.

Conduct faculty succession planning. Current faculty workloads are so demanding that professional development suffers due to the difficulty of keeping pace with the rapidly evolving healthcare field, and emerging teaching and learning technologies (simulation labs, distance delivery methods, etc.). If schools take a human capital development approach, they will understand the need to strategically target new skills they can assist faculty members to obtain. Scholarships and internships should be developed based on a career ladder approach that moves promising students and faculty up the ranks. Also, as increasing numbers of faculty retire, schools must have a mechanism to capture the irreplaceable intellectual capital of experienced faculty. Therefore, the Task Force highly recommends that schools do the advance planning necessary to inventory faculty skills and future needs so that retiring faculty have the opportunity to mentor junior faculty and transfer skills and knowledge before they are phased out.

3. Share Resources Among Schools. Nursing schools in Colorado are competing against each other for a limited supply of experienced and credentialed educators. The Colorado Council of Nurse Educators has recently discussed collaboration between institutions to assist staff to pursue graduate degrees, including decreased tuition rates from colleges offering advanced degrees, decreased workloads from the parent institution, and sharing of faculty among schools to cover for those advancing their education. Based upon the inventory of available faculty around the state, schools could create a statewide pool of educators, especially in the specialty areas of pediatrics, obstetrics/gynecology, and psychiatry that could be made available to all.

Nursing schools could also leverage their resources by using videoconferencing, distance learning and simulation labs.

The Colorado Mountain and Plains Partnership Program (MAPP) could serve as model for integrating these strategies. From 1995 to 2002, the Mountain and Plains Partnership, a coalition of eight universities and colleges and 13 community partners, developed and offered a distance education degree program for nurse practitioner, certified nurse-midwife and physician assistant students living and/or working in rural, frontier or urban Health Professional Shortage Areas or federally designated Medically Underserved Areas of Colorado and Wyoming, and also in parts of New Mexico and Arizona. Now defunct, this program could be resurrected, retooled and expanded to employ a common nursing curriculum to maximize faculty resources and reach students in and beyond the metro area.

The Task Force recommends that the Council and all schools continue to examine ways to share resources, including increasing access to advanced degrees, especially in rural areas. Graduate degree institutions are especially encouraged to work more closely with community colleges.

4. Leverage Public-Private Partnerships

Through partnerships with healthcare providers, nursing schools can increase their faculty rolls and class offerings by introducing experienced clinical nurses to teaching. Schools are also able to significantly share the cost of clinical rotations as the clinical agency absorbs the cost differential between practice and academic salaries. A study by the Colorado Center for Nursing Excellence that surveyed nursing schools on the number of full-time clinical instructors supported through a strategic partnership with a health care facility, such as a Clinical Scholar Program, showed that the average cost to facilities of supporting a full-time faculty position during the 2003 academic year was \$140,693. In fact, responding facilities reported spending approximately \$4 million to support the clinical education of nurses. The range was a low of \$1,000 to a high of \$773,000 per facility for nurse training-related expenses.¹¹

In order to expand the range of clinical sites, educate and train nurses more effectively, and increase the number of clinical nurses exposed to teaching, the Task Forces calls upon all schools to continue to cultivate close partnerships with area healthcare sites, and encourages healthcare facilities to continue to invest or increase

¹¹ Colorado Center for Nursing Excellence, 2004 Colorado Nursing Faculty Supply and Demand Study (April 2005)

their investment in such partnerships.

5. Increase Clinical Sites and Hours

The majority of Colorado nurses graduate with Associates degrees that require far fewer clinical education hours than BSN degrees. This can create serious problems integrating new nurses into a workforce that demands excellence on the first day on the job. In essence, it has meant that the work of orienting new nurses has shifted from the schools to the hospitals. And while schools have struggled to find clinical slots for students, some hospitals are overwhelmed with student rotations.

Currently the Colorado Center for Nursing Excellence is piloting two programs to increase clinical sites and hours, one which is designed to inventory supply and demand for clinical sites and the second, designed to increase the number of clinical faculty. The Task Force recommends that nursing programs and employers participate in and support the programs below:

- **The Colorado Nursing Clinical Placement Inventory and Matching System Pilot Project** is a pilot technology program that would conduct a comprehensive inventory to support a supply and demand response for clinical rotations. The primary goal of this system is to expand sites to provide clinical experience to nursing students. Nurses can prepare candidate profiles for consideration by the schools as clinical instructors, and schools can post openings. Schools can also identify the proper clinical sites to provide students with optimal experiences. Likewise, hospital leaders can host promising students in order to attract budding nurses to a given facility, identify increased opportunities throughout facilities, expand slots and target underserved areas. For example, the southeast corner of the state supports a large prison industry with one facility serving as a long-term care provider. Students should be exposed to such unique public placements or they will not consider them.

Preliminary evaluation data regarding the pilot is very promising and, if warranted, a sustainable financing model for this resource must be established. In order to expand clinical opportunities and support the work of the Center, the Task Force strongly encourages hospitals and philanthropic organizations to assist in funding this resource.

- **The Faculty Development Initiative** prepares practicing nurses to become “clinical scholars” who can oversee clinical rotations. Through the Clinical Scholar Model, coordinated by the Center, career nurses who want to become educators have an opportunity to test their abilities and in some cases work toward advanced degrees at the partner institution. The Center has worked with schools and employers around the state to publicize and make available a 40-hour training developed to prepare clinical

scholars. To date nearly 300 nurses from diverse practice settings in rural and urban areas have completed the training. The experience has motivated some participants to pursue a higher level of education to prepare for faculty roles.

The current funding source for the clinical scholar project is the Colorado Department of Labor and Employment, with substantial in-kind contributions from both educational and practice partners. There is still 18 months of funding remaining to support the training and to conduct a formal evaluation of the project. After that time, a fee-based model will be adopted. In order to recruit and bring new faculty on board as rapidly as possible, the Task Force recommends that funding for this training be sustained. The Task Force further recommends that provision for academic credit for course completion be established, that employers adopt tuition reimbursement programs to cover the costs of the program and that nursing schools provide scholarships for unaffiliated nurses. Lastly, the Task Force recommends that all schools work closely with their clinical scholars in their roles as teachers and students to ensure that they have the oversight and academic guidance they need in order to succeed.

6. Encourage Adoption of Magnet Forces Within Colorado Facilities

In 1993, the American Nurses Credentialing Center created the Magnet designation, which is awarded to hospitals that demonstrate excellence in 14 clinical and administrative areas that support nursing excellence (<http://www.nursecredentialing.org/magnet/index.html>). Currently a total of 251 facilities around the country possess Magnet status, including five in Colorado: The Children's Hospital, Craig Hospital, North Colorado Medical Center, Poudre Valley Medical Center and University of Colorado Hospital. Because of their superior attention to nursing quality, Magnet hospitals attract and retain greater numbers of nurses, including new graduates. Retaining experienced nurses to mentor new graduates is essential to improving the practice environment and training younger, less experienced nurses.

In order to increase new graduate retention in hospitals around the state and improve patient safety, the Task Force recommends that all Colorado hospitals adopt Magnet forces. The Task Force further encourages hospitals to work together to share best practices for working with experienced nurses, whether through Denver-based roundtable meetings or national conferences and seminars.

E. Professional Nursing Practice Involvement in Planning for Patient Care Pilot Program Description

Purpose: Staff nurses have critical information and knowledge that can be invaluable to planning for care and they need to be key participants in decision making regarding the planning process. However, it is not clear what model or models work best to involve staff nurses. Therefore, it would be beneficial to design and implement a pilot project that would provide reliable and practical information on how to ensure effective participation of staff nurses in decision making.

Recommendation: The Governor's Nurse Workforce and Patient Care Task Force proposes the formation of a Pilot Program Implementation Committee (PPIC) to set forth guiding principles for the establishment of a pilot program for hospitals and their direct care nursing staff to model professional nursing practice involvement in the decision making and planning for patient care. This would include involvement of professional nurses providing direct care at the unit level in the decision-making process in 1) planning for staffing, and 2) in issues of importance to nursing.

Guiding Principles

1. Evidence has indicated that involving direct care nurses in decision making that affects nursing practice is beneficial.
2. Direct care nursing participation in decision-making processes impacting patient care and nursing issues needs to be evident at both the organizational level and at the direct care or unit level.
3. Nurses involved in providing direct care have critical information and knowledge to provide in planning for care. Direct care nurses are key decision makers in the planning process.
4. The nursing work environment includes multiple factors which impact nursing satisfaction and care. Direct care nurse staffing is one aspect of the nursing work environment which needs to be included in the pilot.
5. The identification of an effective model or models for professional nursing practice involvement in decision-making and planning for staffing and other issues related to patient care has to have demonstrated value and efficacy before implementation on a larger scale.
6. Implementation of the pilot study and of the pilot recommendations should include consideration of the impact on hospital facilities. It is recommended that facilities could incorporate governing structures already in place for nursing governance where feasible. Hospitals may share similar characteristics yet exhibit differences related to size, location and patient population. The Pilot Program will take these differences into account in both the implementation of the Pilot and the final recommendations.

Establishment of the Pilot Program

The Governor's Nurse Workforce and Patient Care Task Force recommends legislative

action to establish a Pilot Program to identify and evaluate effective model(s) for direct care nursing involvement in decision-making in planning for staffing and other issues related to patient care. The Pilot would identify potential models or structures that support nursing involvement in decision-making in issues related to patient care. If proven effective, these model(s) would become recommendations for best practices in Colorado.

One component of the Pilot would formalize a study in three or four hospitals in Colorado to implement and evaluate effective working models. Hospital participation will be voluntary. The Pilot Program may be implemented in two or three units within a hospital. Those units may include a medical/surgical unit and a third unit which could be an intensive care unit or step down unit. Units would have to be defined.

Depending upon the scope and structure of the pilot that is crafted, the legislation may recommend that the PPIC develop implementation structures and timelines for the pilot. A mechanism for direct-care staff nurse input as well as feedback should be identified for the planning, implementation and evaluation phases.

Program Implementation Committee

A Pilot Program Implementation Committee (PPIC) shall be established to oversee this pilot. Its members shall be selected based on the need for balance, the need for a variety of types of expertise, the ability to collaborate, and trustworthiness. The PPIC will be composed of two members appointed by the following organizations: The Colorado Hospital Association; the Colorado Nurses Association; the Service Employees International Union Nurse Alliance of Colorado; the Colorado Organization of Nurse Leaders, the Colorado Council on Nursing Education, the Governor of Colorado. The Governor's appointees will be nurses who are selected at large. In addition, one member will be appointed each from the Colorado Department of Public Health and the Environment and the Center For Nursing Excellence. Upon selection of the hospitals, each hospital will appoint a nurse in an advisory capacity to the Pilot. This should be someone best suited to inform the planning activities of implementing the pilot from the organization.

In addition to the above appointees, a nursing researcher currently involved in research with nursing work environment issues (Janet Houser) is recommended as an appointee in a research advisory capacity.

A Principle Investigator/Independent Evaluator will be assigned by the PPIC to oversee the project. His/Her selection shall be made by consensus of the members.

Study Design may include an Exploratory, Descriptive or an Evaluation Study.

Methodology will be guided by a research expert in nursing work environment. Such methodology will include standardized data collection, tools for measurement, and evaluation of model effectiveness, etc. (Janet Houser has developed some instruments for research in this area that could be used.)

Study Time Frame will be guided by the research plan. It could range from 6 months to 1 year. It could also be staged depending on the study design.

Funding for the Pilot may be provided from public or private sources. Consideration will be given for any available Colorado General Fund dollars and/or private foundation or individuals gifts, grants or donations. Availability and commitment of funding is required before the Pilot begins. All funders are to be approved by consensus of the members of the PPIC.

Pilot Program Implementation Committee Planning Items

1. Identify the key focus areas for inclusion in the pilot study by consensus of participating members. Guidance in this area will be provided by researchers.
2. Explore options for funding.
3. Identify effective models for direct care nurse involvement in decision-making process for staffing and other issues related to patient care. (Janet Houser is a key resource for this item.)
4. Identify which model(s) best incorporates the key focus areas identified.
5. Develop a research study to evaluate the effectiveness of the model as applied in three units in three to four hospitals in Colorado. One of the hospitals may be rural.
6. A neutral organization, with experience to guide the project, will house the study, as determined by consensus of the PPIC.
7. Develop study/research design with guidance from committee research advisor.
8. Develop and explore options for implementation to include other potential resources such as the Colorado Center for Nursing Excellence or one of Colorado's Universities.
9. Develop plan for research evaluation.
10. Implement the pilot in target hospital units within participating hospitals. Staff nurses involved in direct care need to be involved in implementing the hospital pilot.
11. Evaluate study findings. Establish a plan to disseminate findings to appropriate entities that include the Health and Human Services Committees of the

Colorado General Assembly; the Governor; members of the original Task Force; the PPIC members and hospitals participating in the study.

12. Determine effectiveness of models; i.e. look for a strong, effective design.
13. Based on study findings, develop best practices recommendations with implementation strategies for Colorado's hospitals.